Perceived Organizational Support, Workplace Loneliness, and Creativity: Mediating Role of Workplace Loneliness, and Moderating Role of Proactive Personality

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ARTICLE DETAILS	ABSTRACT
    	Purpose: Workplace loneliness is not something we often hear in organizations. Being a pervasive issue and having adverse effects, little attention has been devoted to understanding its relationships. To address the gap, the present study was employed to investigate perceived organization support as antecedent and creativity as a consequence outcome of workplace loneliness among managerial level employees. Proactive personality was used as a moderator to test workplace loneliness relationships with antecedent and outcome for significance. **Methodology:** The research was conducted by adopting a cross-sectional design, where data was collected in dyads by using two separate questionnaires for manager-subordinate relationships. The sample population (N=348) were individuals in a dyadic relationship working at managerial and subordination levels from the banking, education, manufacturing, and pharmaceutical sectors. By using CFA measurement model was accessed and hierarchical regression analysis was adopted to test the curvilinear relationship between perceived organizational support and workplace loneliness. Hays process macros were used for testing moderating effects. **Finding& Conclusion:** Results revealed a negative (-) relationship of workplace loneliness with its antecedent and outcome. This study also indicated that high proactive individuals are less likely to exhibit workplace loneliness when support is high. It also indicated that highly proactive individuals in the presence of workplace loneliness represent creative behavior as compared to low proactive individuals.

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1. Introduction

In this globally competitive work environment, organizations need individuals who are professional in developing and maintaining social relationships (Wright, 2012). At different stages, individuals try to fulfill a variety of their needs by maintaining relationships such as needs of attachment, belongingness, and social support (Lakey & Cohen, 2000). Although individuals working at the managerial level spend a substantial part of their time on work-related activities and individuals (Ozcelik & Barsade, 2018), as compared to positive workplace relationships, very limited literature provides details regarding workplace loneliness as a negative workplace relationship outcome. Researchers including Lam and Lau (2012) and Wright et al., (2006) argue that feeling of workplace loneliness is associated with a hostile feeling of dissatisfactory social relationship by an employee at the workplace. For an individual feeling, it is a subjective evaluation that either his/ her affiliation requirements are being fulfilled by individuals at work or organizations as well (Ozcelik & Barsade, 2018).

Workplace loneliness is reported by individuals of all ages (Masi et al., 2011), and with identifiable differences at different levels (Qualter et al., 2015). According to Weiss (1973), loneliness is a relational construct that not only changes the perception of an individual about itself but also the way they feel and behave about others (Cacioppo & Hawkley, 2009; Jones & Hebb, 2003). More importantly, these individuals also show strong concerns about how peers and coworkers think and behave towards them (Heinrich & Gullone, 2006). From studies of work-related issues, we already know that employees are not only driven by fulfilling economic needs but also need to develop social attachments and relationships at work (Gouldner, 1954; Mayo, 1949). Similarly, employees also get themselves involved in organizations to socialize, to have career developments, to secure the future, and reduce the sense of uncertainty, and belongingness to a group of professionals.

In an organizational context, besides the existence of emotions like workplace loneliness, many researchers like Shapiro et al., (2005) have argued that the way an organization treats its, employees, creates a sense of felt obligation to put effort and keeps them motivated towards achieving organizational goals. Liao et al., (2009) considered perceived organizational support (POS) as a construct of motivation. Moreover, these motivated employees get themselves involved in completing assigned tasks by connecting to the people as required by their job in different ways they feel it (Kahn, 1992). Employee-directed beneficial plans implemented by management can help employees to establish high-quality exchange relationships, as result, these employees reciprocate beneficially and positively to the organization. On perceiving high levels of support from organizations, these employees get motivated and as a result, it reciprocates positive behaviors like showing citizenship behavior, supporting creativity and innovation and showing more work engagement (Lambert, 2000). To remain effective, long-term survival and take advantage of emerging opportunities, an organization needs creativity which is a prerequisite to innovation (Shalley et al., 2004). Workplace loneliness is a result of negative emotions, which can cause harmful mental health issues like reducing self-esteem, disturbing goal directness, and hindering creativity (Ibrahim et al., 2016). Since creativity and proactivity are closely related behaviors (Unsworth & Parker, 2003), in presence of support negative emotions like workplace loneliness can cause deficiencies in solving work-related problems creatively (Warr, 1994; Ibrahim et al., 2016).

In developing countries, hundreds of fresh graduates/ young professionals migrate from rural to metro cities to search for jobs in banks, manufacturing, education, and pharmaceutical sectors. Through this relocation, they feel alienated from their family, friends, and social circle, and as a result of this social shift, these individuals get

themselves involved in a feeling of loneliness. To address stated issues of loneliness at the workplace faced by employees working at managerial levels, at first this study was conducted to examine its curvilinear relationship with perceived organizational support. Secondly, workplace loneliness is related to the nonfulfillment of expected intimacy and its impact on self as well as on related individuals like subordinates.

Thus, this dyadic nature of the relationship between the manager and his/ her subordinate was directed to examine for outcome creative behavior of the manager, reported by his/ her immediate subordinate. Some researchers provided evidence for the role of personality for an exhibit of said organizational behaviors (Roberts et al., 2008), which largely remains unidentified why it exists, thus a further examination was made that how proactive individuals are more likely to represent such behaviors. This study makes three significant contributions. First, it provides literature and contributes workplace loneliness to HR discipline. Secondly, it also provides a framework to understand the role of antecedents like perceived organization support and creativity as outcomes of workplace loneliness among managerial level employees. Lastly, this study provides literature and further its analysis helps to understand the moderating role of proactive personality between antecedent and outcome of a focal variable.

2. Theory and Hypotheses Development
2.1. Perceived organization support and Workplace loneliness

According to organization support theory, the propensity of employees regarding an organization's hostility or positivity towards themselves depends upon the personification of the top management and colleagues (Eisenberger et., al., 1986). Similarly perceived organization support is an employee's belief that in response to their attachment, their organization acknowledges their concerns through wellbeing which as a result reduces their negative feelings like loneliness at the workplace. Also, in their study of 308 employees from different organizations, Narang and Singh (2012) reported the role of organizational support to be a strong predictor of individual workplace emotions. In an organizational context, perceived support is the level to which an organization shows concerns of wellbeing and appreciates employees' hard work, which helps them coping negative emotions at the workplace. Vigorous support to supervisors and colleagues helps to respond to extra-role behaviors and improves work efficiency. Besides these feelings, when employees feel lacking in support at the workplace, they develop negative feelings about the organization and get involved in the feeling of loneliness (Rhoades and Eisenberger, 2002; Aselage and Eisenberger, 2003).

Interpersonal models for negative emotions (Coyne, 1976; Thoits, 1986), holds that the existence of support through which an individual usually depends upon some other individual to provide help and care for fulfilling his/ her needs helps buffer against risk for getting involved in negative emotions (workplace loneliness). Some researchers have argued that higher levels of perceived support from the environment are accompanied by different levels (relevantly lower) of negative emotions in working adults (Shulman et al., 2009; Milevsky, 2005). Similarly, when available, such support provides a context for a maladaptive inter like seeking excessive or assurance for support in challenging work environments. Such excessively seeking or assurance for support at work can be associated with negative feelings (workplace loneliness) when there is a felt deterioration of support in the organization. In this regard, it is assumed that workplace loneliness has a unique pattern for both social and emotional aspects, and will change during stages of its development. Further, this change can occur through the development of a nonlinear pattern which is supported

by both social and emotional loneliness (Shahidi, 2013). Thus, the perception of low perceived support in an organization has the personal process been linked with a negative feeling of workplace loneliness, and this association appears to be more complicated than a simple linear association.

H₁: The relationship between perceived organizational support and workplace loneliness is inverted U-Shaped.

2.2. Perceived organization support, Workplace loneliness, and Creativity

Perceived support in the organization is the evaluation of an individual for being provided with support and care when needed. Edward et al., (2008) refer to such support as a perpetual evaluation of the availability and quality of one's support system. The existence of such support facilitates self-disclosure for individuals, which is an essential factor for an interpersonal relationship, and this function is explained by the social penetration theory by Altmann and Taylor (1973). Social penetration theory identifies different stages of depth and breadth of self-disclosure through which an individual develops relationships. In a study of self-disclosure levels of opposite genders, Wheeless et. al., (1988) have reported a correlation between self-disclosure and loneliness. Similarly, the relationship between perceived organizational support and adaptation of self-disclosure contributes to an individual's well-being. This well-being enables us to understand the fact that when an individual perceives solid support from an organization it will reciprocate by sharing necessary information, thus it is less likely to report feelings of loneliness (Rhodes, 2014).

Creativity refers to the process of turning new ideas into reality by going beyond the usual. According to Schwarz (1990), individuals using emotions as a source for information tend to evaluate different situations. By considering all creative activities to carry through a process of risk (hit and try), individuals who negatively evaluate themselves and have fear of failure cringe themselves from performing creative activities (Tierney & Farmer, 2011). As the feeling of loneliness comes along with detail-oriented analytical processing may hinder such ability and as a result, might reduce the likely possibility of creative activity. According to Shalley et al., (2004), an employee's creative behavior is linked to both external (e.g; perceived support from the organization) and internal (e.g; personality) factors. As to answer the question "how to cultivate creativity?" is crucial for managers, it is still unclear for researchers to clarify the association between these external and internal factors (Bai, Lin & Li, 2016). As creativity is the novel development of potential ideas (Corazza, 2016), Amabile & Pratt, (2016) argue that such idea generation depends upon organizational components (like support) that influence individual components by affecting the creative process. By applying this componential model of creativity, an individual who perceives a supportive environment (organization support) can actively change their creative behavior to perform tasks. Rhoades & Eisenberger, (2002) defined perceived organization support as an extent to which employees recognize organizational contributions as well-being, which can affect intrinsic and extrinsic motivation to perform the task. Similar to self-disclosure, while sharing a creative idea, an individual can perceive it to be a risky activity that can result in rejection. Such ideas are novel, unproven or tested, and are likely to be rejected. Because of this fear of rejection, individuals tend to withhold rather than share the most creative ideas, and instead, share only conventional and uncontroversial ideas to avoid criticism (Mueller et. al., 2012; DeWall & Bushman, 2011).

Perceived organization support provides an employee with connotation at work (Kurtessis et al., 2017), also an employee in presence of high organization support is likely to exhibit creative behaviors (Wang & Xu, 2017; Akgunduz et al., 2018; Firoz

& Chaudhary, 2021). As negative emotions can cause serious ongoing discrepancies which result in a hazardous and depressing environment. Therefore, when individuals feel themselves under the control of negative emotions like workplace loneliness can adopt a more detail-oriented and analytical processing strategy to solve the problem at hand (Duan et al., 2020; Fredrickson & Branigan, 2005).

H₂:There is a significant and negative relationship between workplace loneliness and creativity.

H₃:There is a significant and positive relationship between perceived organizational support and creativity.

H₄:Workplace loneliness plays a significant mediating role between Perceived organization support and creativity.

2.3.   Workplace loneliness and Proactive personality

Bateman and Crant, (1993) argued that proactivity is an individual's propensity, relevantly of a stable and dispositional nature particularly in a variety of situations, to make a behavioral impact on the external environment is a trait which is commonly known as proactive personality. Moreover, these individuals show their capacity and intentions to make an impact on surroundings (work environment) not limited only to physical conditions but behavior also. Such individuals also retain the capacity to recognize different opportunities and to take deliberate result-oriented actions to show significant results (Bakker, 2017). To make an impact on the environment these individuals adapt to changes keeping given changing environment, these individuals adopt changes to themselves to make an impact on the environment. Personality traits including consciousness, agreeableness, and proactivity are among factors that can help explain the phenomena occurrence of workplace loneliness. With having the capacity and vulnerability to overlap both perceived support and workplace loneliness, these associations might be suspicious (Viet, 2018).

Roberts et al., (2008) describe personality as an enduring pattern of an individual's cognitive, emotional, and behavioral responses through which he/ she can be distinguished from others. In a meta-analysis study, Buecker et al., (2020) have argued that different personality traits (like proactivity) can be tested for moderation results, which is relevant because loneliness also has trait-like characteristics and can be conceptualized for associations between perceived support and creativity (Mund et al., 2019). This would suggest that presence of such a relationship would be more obvious for individuals with high as well as lower levels of proactivity. It could prospect associations between perceived support, workplace loneliness, and its outcomes are stronger among individuals high in proactivity as compared to those who exhibit a lower level of proactive behavior.

In a study related to stress, Bolger and Zuckerman (1995) state that the proactivity of an individual may influence not only the exposure to stress (e.g., the experience of loneliness) but also the outcomes of such behavior. These responses, in turn, may impact the association between antecedents and outcomes of workplace loneliness in an organization. Although many researchers (e.g., Ahsan et al., 2019; Maan et al., 2020) investigated the role of proactive personality as moderators in prospective associations in other domains, it has never been examined as a moderator in the relationship between perceived support as antecedent, and creativity as outcomes of workplace loneliness.

H₅: Proactive personality moderates the curvilinear relationship between perceived organization support and workplace loneliness.

H₆: Proactive personality moderates the relationship between workplace loneliness and creativity, significantly.
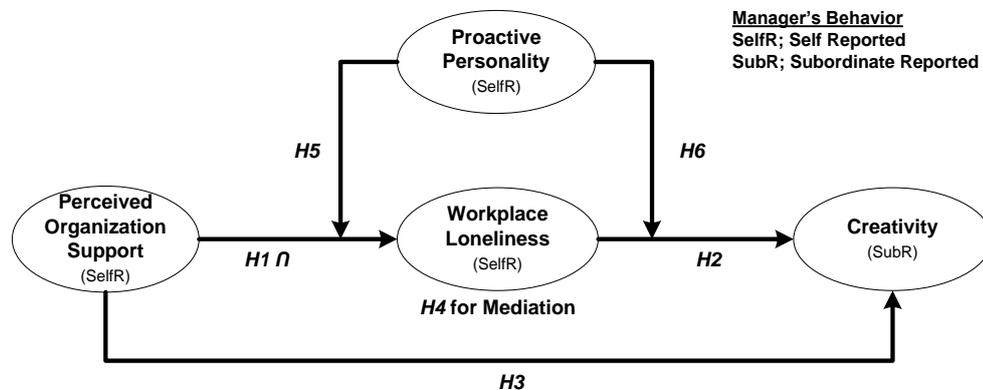
2.4.   Conceptual Framework

Figure.1. Research Model
Source: Author's own elaboration

3.   Methodology
3.1.   Sampling and Data Collection

The sample consists of manager-subordinate dyads recruited from four different business organizations/ sectors including banking, education, manufacturing, and pharmaceutical, located in central Punjab-Pakistan. The sample from diversified sources was selected to investigate that how individuals from different sectors exhibit a feeling of workplace loneliness and how the presence of such negative feelings impacts the creative ability of managerial level employees. While selecting individuals, an utmost effort was made to select individuals who might have words like CEO, HOD, director, principal, and manager in their designations. Further, some other designations like area In-charge, coordinator, and supervisor, where individuals were confirmed to perform managerial activities and have subordination as well, were also considered (Podsakoff et al, 2003).

Data were collected through two different questionnaires made for managers and subordinates, separately (Baruch & Holtom, 2008. Managers were selected by receiving consent from them. To ensure the mutual intimacy and depth of manager–subordinate relationship, we put some conditions for participants. For example, respondents (manager and subordinate) must have a considerable, at least twelve months-old working relationship for better understanding. The manager should be willing to give the name or identity of one subordinate for which he/she thinks can best describe his/her abilities. Utmost attention was made to the confidentiality and secrecy of all respondents. Further, both personal visits and online data collection methods were adopted to collect data. The study sample consisted of 348 manager-subordinate dyads representing four sectors banking (24.4%), education (23.9%), manufacturing (26.1%), and pharmaceutical (25.6%), respectively. As it was difficult to identify managers and subordinates willing to participate in a survey, so convenient sampling method was adopted. A pilot testing was also conducted by distributing questionnaires to 55 dyads. After checking for questionnaires reliability and validity, a total of 450 dyadic questionnaires were distributed and after rejecting incomplete and outliers only 348 (77.3%) were considered valid and carried for in-depth evaluations.

3.2. Measures

Standard, reliable and valid measures from previous researches were adapted, where data was gathered by using a five-point Likert scale. Perceived Organization Support (Cronbach's α 0.947) was measured by using 08 items scale developed by Eisenberger et al., (1997). A sample item is "My organization strongly considers my goals and values". Workplace loneliness (Cronbach's α 0.963) was measured by using 16 items scale developed by Wright et al., (2006). A sample item is "I often feel emotionally distant from the people I work with". Proactive Personality (Cronbach's α 0.833) was measured by using 05 items scale developed by Kickul & Grundy, (2002). A sample item is "Nothing is more exciting than seeing my ideas turn into reality". Creativity (Cronbach's α 0.918) was measured by using 13 items scale developed by Zhou and George, (2001). A sample item is "My manager comes up with new and practical ideas to improve performance".

4. Results

4.1. Participant Demography

Demographic characteristics of respondents for frequency (N=348) represent a majority of 271(77.9%) respondents who existed between 30 to 50 years of age. Where female participants consist of 98 (28.2%) and males were 250 (71.8%). Accordingly, the qualification of majority respondents 294(84.5%) was between fourteen years and eighteen years of education (84.5%). The majority of the participants were married 226 (64.9%), and most of the individuals were having managerial level experience from two to fifteen years 276 (79.3%). From four different business sectors collected data holds 85 participants from banking (24.4%), 83 from education (23.9%), 91 from manufacturing (26.1%), and 89 from pharmaceutical (25.6%).

4.2. Reliability and Validity

Table.1 demonstrates results for the reliability and validity of scales used. It shows the required threshold (Cronbach's α > 0.7) to be met by all variables. From analysis, KMO (0.945) was found greater than the recommended value (.800), (Kaiser, 1970), and a significant (p<.05) Bartlett's test of sphericity was also found. It also shows all the values for composite reliability meet the required threshold (CR>0.7). The table also represents all values for ASV (Average Shared Squared Variance) to be less than that of AVE (Average Variance Extracted) for all variables, thus supports that all respective variables are converging into their own construct, thus establishing convergent validity (Garver & Mentzer, 1999). Furthermore, values of AVE for all variables (except creativity e.g. 0.450, which is approaching required) establish discriminant validity, and are found to be appropriate (>0.5) (Hair et al., 2010; Hair et al., 2014). The analysis also reported robust statistical results for factor loadings, enabling us to anticipate and use the same to carry forward the analysis. The table also shows adequate results for data normality, e.g. Skewness (between +1,-1) and Kurtosis (between +1, -1).

Table.1. Reliability and Validity Statistics (N=348)									
Sr.	Study Variables	Item Nos.	Items	Loading	Cronbach's Alpha (≥0.7)	Skewness	Kurtosis	CR	AVE	ASV
1	Perceived Organization Support	8	POS1	.880		-0.027	-0.930			
			POS2	.912		-0.056	-0.962			
			POS3	.865		-0.081	-1.022			
			POS4	.854	.947	0.002	-0.935	.949	.698	.268
			POS5	.847		0.174	-0.917			
			POS6	.859		0.042	-0.975			
			POS7	.877		0.075	-0.963			
			POS8	.754		-0.120	-0.250			

2	Workplace Loneliness	16	WPL1	.864		-0.594	0.937		
			WPL2	.911		-0.297	0.753		
			WPL3	.882		-0.325	0.152		
			WPL4	.824		-0.081	0.344		
			WOL5	.836		-0.073	0.315		
			WPL6	.844		-1.039	0.380		
			WPL7	.810		-0.892	-0.112		
			WPL8	.827	.963	-0.982	0.441	.964	.630 .341
			WPL9	.821		-1.034	0.343		
			WPL10	.841		-0.315	0.206		
			WPL11	.851		-0.045	0.423		
			WPL12	.827		-1.138	0.422		
			WPL13	.788		-0.870	-0.233		
			WPL14	.800		-1.019	0.521		
			WPL15	.520		-0.555	-0.466		
			WPL16	.566		-0.784	0.287		
3	Creativity	13	CR1	.746		-0.918	0.919		
			CR2	.648		-0.921	0.564		
			CR3	.700		-0.753	0.641		
			CR4	.765		-0.826	0.716		
			CR5	.726		-0.825	0.307		
			CR6	.724		-0.569	0.009		
			CR7	.704	.918	-0.800	0.383	.912	.450 .041
			CR8	.677		-0.688	0.191		
			CR9	.735		-0.835	0.819		
			CR10	.627		-0.626	-0.017		
			CR11	.764		-0.768	0.720		
			CR12	.756		-0.735	0.688		
			CR13	.674		-0.748	0.782		
4	Proactive Personality	5	PP1	.817	.833	-0.768	0.470	.827	.52 .243
			PP2	.653		-0.914	0.916		
			PP3	.889		-1.122	1.038		
			PP4	.620		-0.866	0.715		
			PP5	.868		-.1.009	1.007		

Source: Author's own elaboration

4.3. Correlations

Table.2 reports values for correlation among the variables, mean and standard deviation. It shows a significant positive relationship for perceived organization support, creativity, and proactive personality. Whereas all results for workplace loneliness are significant and negative in nature. The table represents a higher association among variables, where Table II supports normality of data (Skewness between +1, -1 and Kurtosis between +1, -1), which means that this sagacity of association between research variables represents suitability for selection and prediction of the model.

Table.2. Correlation

Variables	M	S.D	I	II	III	IV
I. Perceived Organization Support	2.91	1.104	-			
II. Workplace loneliness	4.21	0.754	-.720***	-		
III. Creativity	3.87	0.664	.261***	-.115**	-	
IV. Proactive Personality	4.15	0.665	.489***	.705***	.232***	-

Notes:- N=348 *p<0.05; **p<0.01; ***p<0.001
Source: Author's own elaboration

4.4. Model Fitness

Table III represents model fitness statistics. The values of CMIN/DF (Chi-squared per degree of freedom by Marsh and Hocevar, 1985) for CFA (2.265) and SEM (2.295), CFI (Comparative Fit Index, by Bentler, 1990) for CFA (.918) and SEM (.928), TLI (Tucker Lewis Index) for CFI (.913) and SEM (.923), IFI (Incremental Fit Index, by HU and Bentler, 1999) for CFA (.919) and SEM (.928) and RMSEA (Root mean squared error of error approximation, by Browne and Cudeck, 1993) for CFA (.060) and SEM (.061) have achieved the required threshold values. Hence this model was considered fit for testing hypothesized relationships between variables. Results show

significant (R^2=0.180, p<0.05) results for testing the relationship hypothesis between Workplace loneliness and Creativity, which provide support for our proposed hypothesis H2. Further, it shows significant (R^2=0.400, p<0.05) results for testing the relationship between Perceived Organization Support and Creativity, thus providing support for our proposed hypothesis H3.

Table.3. Model Fitness Index

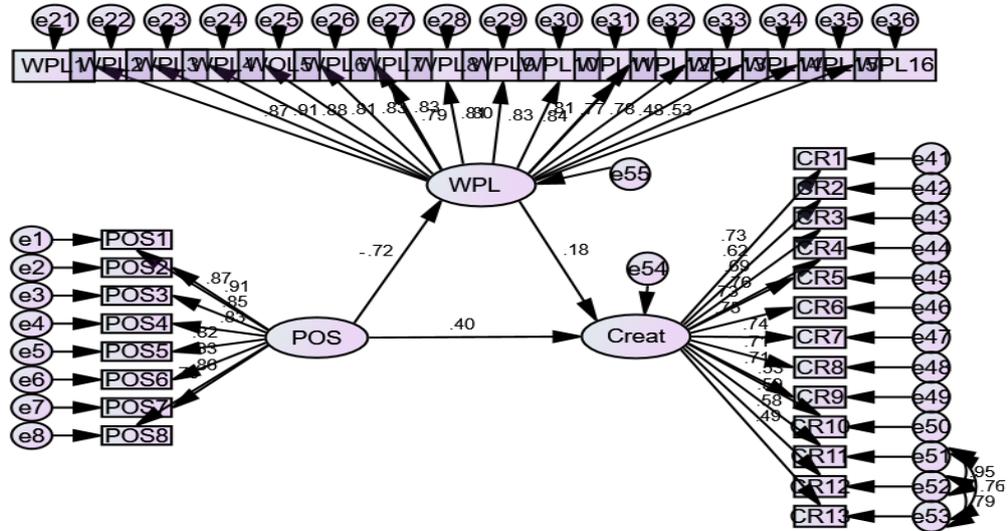|	CMIN/DF(≤5.0)	CFI (≥ 0.9)	TLI (≥ 0.9)	IFI (≥ 0.9)	RMSEA (≤0.08)
Measurement Model	2.265	.918	.913	.919	.060
SEM Model	2.295	.928	.923	.928	.061

Source: Author's own elaboration

Figure.2. Structural Model
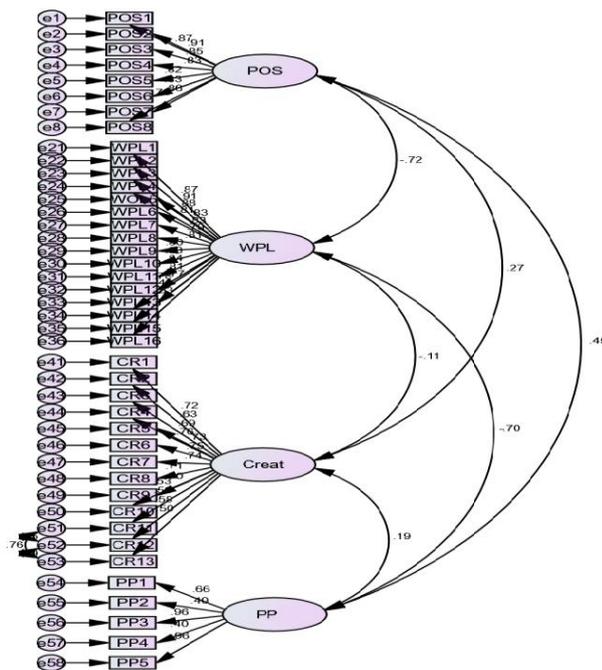**Source: Author's own elaboration**

Figure.3.Measurement Model
Source: Author's own elaboration

4.5. Hierarchical Linear Models

Table IV summarizes the results of the hierarchical linear relationship between perceived organizational support and workplace loneliness. In step I, Table shows effects of control variables Age (β=.177, p<.05), Gender (β=-.049, NS), Year of education (β=.050, NS) and Managerial service (β=.134, p<.05) with significant value for R^2(.163, p<.05). In Step II, Workplace loneliness was regressed with Perceived Organization Support which resulted in the negative effect of POrgSupp on WPL (β=-.437, *p*<.05) with a significant value for R^2 (.520, p<.05). In Step III, POrgSupp Squared was added to the model, which had a significant negative effect (β=.268, *p*<.05) on WPL with significant value for R^2 (.783, p<.05), which provided support for our hypothesis H1 which proposed an inverted U-shaped curvilinear relationship (as shown in Fig-IV). In step IV, a product of Perceived organization Support and Proactive Personality (β=.032, *p*<.05) was added which resulted in a positive effect with a significant value for R^2 (.787, p<.05). In Step V, for testing moderation of Proactive Personality between the curvilinear relationship of Perceived Organization Support and Workplace Loneliness, a product of Perceived organization Support squared and Proactive Personality (β=.018, *p*<.05) was added which resulted in a positive effect with significant value for R^2 (.788, p<.05), which provided support for hypothesis H5.

Table.4. Results of Hierarchical Linear Models for WPL[1]

Variables		Model				
	Steps	I	II	III	IV	V
Age		.177***	.088***	.063***	.058**	.057**
Gender		-.049	-.007	.007	.012	.015
Year of Edu.		.050	.026	.040*	.039**	.039
Mang. Service		.134**	.048	.034	.038	.038
POrgSupp[2]			-.437***	1.089***	.772***	.880***
POrgSuppSq(H1)				-.268***	-.228***	-.256***
POrgSupp*PP					.032**	.035**
POrgSupp[2]*PP (H4)						.018**
Comments				H1 Supported		H4 Supported
R^2		.163***	.520***	.783***	.787***	.788***
Adj. R^2		.154***	.513***	.779***	.783***	.783***

Notes:- N=348 *p<0.05; **p<0.01; ***p<0.001
[1]WPL=workplace loneliness as dependent variable, [2] POrgSupp=perceived organization support as independent variable, PP = Proactive personality as moderator.
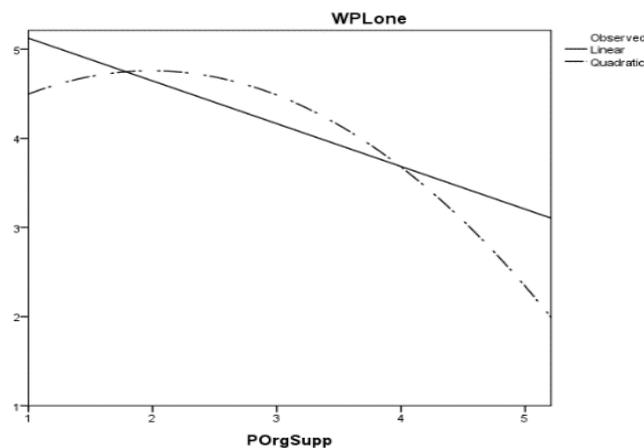
Source: Author's own elaboration

Figure.4. Linear & Quadratic curve
Source: Author's own elaboration

4.6.   Mediation

The mediation effect was tested using Hays Process Macros with several bootstrap samples of 5000. Table V shows significant results for all effects Total (0.157, p<0.05), Direct (0.214, p<0.05) and Indirect (0.057, p<0.05). Figure V for mediation depict that Perceived Organization Support has a significant relation with Workplace Loneliness (a=0.480, p<0.05) where Workplace Loneliness mediates Creativity significantly (b=0.119, p<0.05), where Perceived Organization Support has both direct and indirect significant relationships with Creativity (c=0.157, p<0.05; c'=0.214, p<0.05), respectively. Results revealed that Workplace Loneliness mediates the relationship between Perceived Organization Support and Creativity significantly (with confidence level up to 95%), thus supporting rejecting the null hypothesis for H4.

Table.5. Mediation

Effect Type	E	S.E	P	CI (95%)	
				L	U
Total Effect	0.157	0.031	0.000	0.096	0.219
Direct Effect	0.214	0.044	0.000	0.128	0.300
Indirect Effect	-0.057	0.026	0.000	0.111	0.010
Mediator; Workplace Loneliness (Bootstrap sample size=5000)					

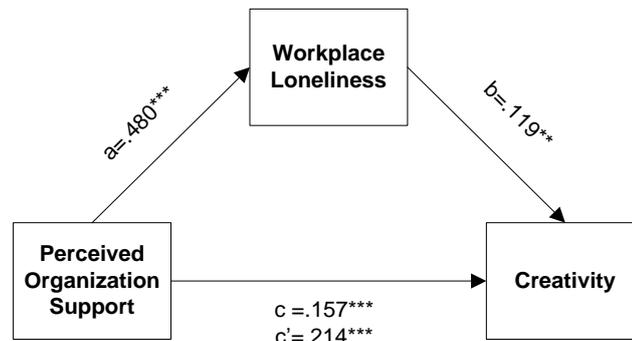**Source: Author's own elaboration**

Figure.5.Mediation
Source: Author's own elaboration

4.7.   Moderation
4.7.1. Moderating role of Proactive Personality among Perceived Organization Support and Workplace Loneliness

Table VI shows significant results of Proactive Personality as moderating variable between Perceived Organization Support and Workplace loneliness. Where model summary results for R^2 (0.69, p<.05) reveal proper functionality of the variables. A significant result for interaction coefficient (0.024, p<.05) provides support for our hypothesis H4a, which proposes a significant moderating role of PP between POrgSupp and WPL. Probing conditional effects of predictor at different levels i.e. Low (β=-0.452, p<.05), Moderate (β=-0.287, p<.05), and High (β=-0.123, p<.05) reveal significant results, which is also support for our hypothesis H5. In Figure VI, the graph for interaction defines that in the presence of POrgSupp it is less likely for a person who is more proactive in behavior, to show intentions towards a feeling of workplace loneliness.

Table.6. Results of Moderating PP between POrgSupp and WPL

Model Summary: F(3, 344) = 260.849, p < .05, R^2 = 0.69					
Variable	Point of Estimate	SE	P-value	Confidence Interval	
				Lower	Upper

POrgSupp → WPL	-1.315	0.173	0.000	-1.655	-0.974
PP → WPL	-0.476	0.179	0.008	-0.829	-0.123
Int_I	0.247	0.042	0.000	0.163	0.331

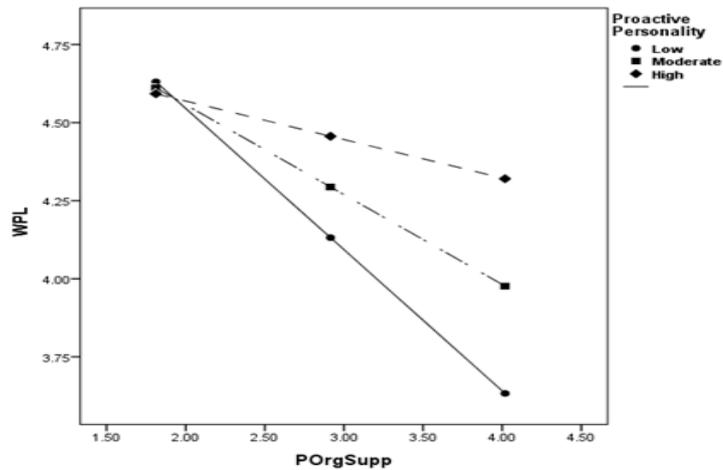**Source: Author's own elaboration**

Figure.6.Plot for Moderation
Source: Author's own elaboration

4.7.2. Moderating role of Proactive Personality among Workplace Loneliness and Creativity

Table VII shows significant results of Proactive Personality as moderating variable between Workplace loneliness and Creativity. Where model summary results for R^2(0.22, p<.05) reveal proper functionality of the variables. A significant result for interaction coefficient (0.139, *p*<.05) provides support for our hypothesis H6, which proposes a significant moderating role of PP between WPL and Creativity. Probing conditional effects of predictor at different levels i.e., Low (β=-0.530, *p*<.05), Moderate (β=-0.438, *p*<.05), and High (β=-0.346, *p*<.05) reveal significant results, which is also support for our hypothesis H6. In Figure VII, the graph for interaction defines that in the presence of WPL it is less likely for a person who is proactive in behavior, to show more intentions towards Creativity.

Table.7. Results of Moderating PP between WPL and Creativity

Model Summary:$F(3, 344) = 44.91$, $p < .05$, $R^2 = 0.22$					
Variable	**Point of Estimate**	**SE**	**P-value**	**Confidence Interval**	
				Lower	**Upper**
WPL → Creativity	-1.016	0.274	0.002	-1.556	-0.477
PP → Creativity	0.149	0.248	0.041	-0.018	-0.036
Int_I	0.139	0.070	0.030	0.007	0.177

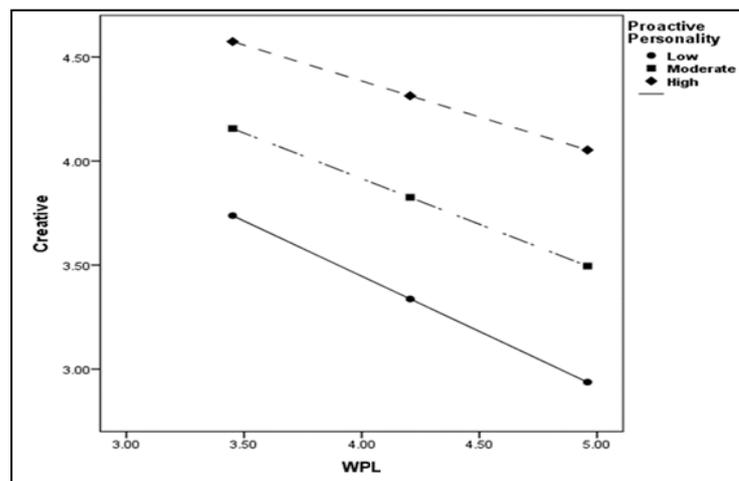**Source: Author's own elaboration**

Figure.7.A Johnson-Neyman plot for the moderation of Proactive Personality between Workplace loneliness and Creativity

Source: Author's own elaboration

4.8.   Discussion

This study presents a very important but less understood phenomenon of workplace loneliness. Our study supports the idea that the existence of negative feelings like workplace loneliness is very harmful to both employees and their organizations as well. Data in dyads for the study was collected from employees (N=348) working at managerial levels and from their subordinates through two separate questionnaires, from four different sectors including banking, education, manufacturing, and pharmaceutical, located in central Punjab-Pakistan. Selection of managers was made by receiving consent from them. Based on the responses from dyads (manager-subordinate relationship) the causality for the relationship of antecedent and outcome of workplace loneliness showed significant results. Results of the study indicated an inverted-U-shaped relationship between perceived organizational support and workplace loneliness. It also indicated that perceived organizational support is a strong predictor of workplace loneliness which is consistent with Wright (2005a). Moreover, a significant negative relationship between support at work and workplace loneliness was reported. Similarly in another study, Rhodes, (2014) reported that when individuals working at senior positions found support at different levels of organization exhibit fewer negative feelings and also express it as a strong predictor for reducing such behavior, thus providing support for rejecting the null hypothesis. Our study also poses a negative relationship between workplace loneliness and creativity. Results of our study for this relation are consistent with previous researchers where the value for R Sq. (0.180) showed significant results (p<0.05) and correlation value (β=-.115, p<0.05) showed negative and significant results. Thus, according to these results individuals under the control of negative emotions like workplace loneliness are more likely to adopt a more detail-oriented and analytical processing strategy to solve the problem which can cause more difficulties in persuading creative ideas (Davis, 2009).

We conducted hierarchical regression to test the curvilinear relationship between perceived organizational support and workplace loneliness. Findings revealed an inverted U-shaped relationship between perceived organizational support and workplace loneliness. As perceived support is the level to which an organization shows concerns of wellbeing and appreciates employee's hard work, so in the presence of such support employees can cope with negative emotions like workplace loneliness. Finding also indicated that workplace loneliness plays a positive mediation between perceived organization support and creativity. Moreover, the interaction graph for the moderation of proactive personality between perceived organization support and workplace loneliness revealed that in the presence of perceived organization support it is less likely for a person who is more proactive in behavior, to show intentions towards a feeling of workplace loneliness, thus provide support rejecting null hypotheses. Furthermore, the interaction graph for the moderation of proactive personality between workplace loneliness and creativity revealed that in the presence of WPL it is less likely for a person who is proactive in behavior, to show more intentions towards Creativity.

Our study contributes to existing literature and research in different ways. First, researchers in different disciplines like sociology, psychology, and mental health studies have claimed the existence of loneliness and have highlighted its negative consequences. However, study for the existence of loneliness in a context like working environment is relatively unaddressed. So, this study is an important standpoint for explaining different types of relationships between loneliness and that

of perceived organization support, creativity, and personality factor-like proactivity. Secondly, this study also contributes to literature for understanding workplace loneliness in a dyadic relationship. It is a known fact that people in close relationships, like manager-subordinate relationships, can feel and predict the slightest change in behavior. So, this study explains how the presence of negative emotions can affect an individual capability to think and change behavior (Jung. H et al., 2021). Similarly, this study also has some practical suggestions: As loneliness is demonstrated as a subjective discrepancy between an individual's desires and that of perceived or existing interpersonal relations (Zysberg, 2012). Our results further supported the argument that in the absence of perceived support from organizations individuals performing managerial jobs can feel lonely, even they are surrounded by people. In such a situation, while experiencing loneliness these individuals can't reciprocate to fulfill responsibilities by remaining enthusiastic and showing creativity. The existence of such negative workplace emotions can hinder performance; hence organizations need to be aware of its existence. Secondly, the negative relationship between perceived organizational support and workplace loneliness indicated that judgment made by individuals at work plays an important role in influencing their experience of loneliness. Besides these feelings, when employees feel lacking in support at the workplace, they develop negative feelings about the organization and get involved themselves into a feeling of loneliness (Aselage and Eisenberger, 2003). Thus, the presence of vigorous support from the organization can help to respond to extra-role behaviors like creativity and can improve work efficiency.

5. Conclusion

Our study supports the idea that the existence of workplace loneliness has deleterious effects on both employees and their organizations. Hence, to have a more productive and healthy working environment organizations need avenues to reduce workplace loneliness. In this study, results provide support for the negative effect of perceived organizational support on workplace loneliness. In addition, we also find a negative effect of workplace loneliness on creative behavior. Further, our study finds support that in the presence of perceived organization support it is less likely for a person who is more proactive in behavior, to show intentions towards a feeling of workplace loneliness. Similarly, it also provides support that in presence of workplace loneliness it is less likely for a person who is proactive in behavior, to show more intentions towards creativity

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